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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,991	02/14/2001	Ning Guo	22171.240	2008
27683	7590	05/31/2005	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			LEE, CHI HO A	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/762,991

Applicant(s)

GUO ET AL.

Examiner

Andrew Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,6-12 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9,12,14 and 16-21 is/are allowed.
- 6) ☒ Claim(s) 4, 6, 7, 8, 10, 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 6, 7, 10, 11, 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites, "wherein no ARQ block includes any tail bits and the physical layer frame includes multiple tail bit". It is unclear where the tail bits are located. In light of specification, fig. 2 teaches physical layer frame 52 that includes the ARQ blocks 58.

Claim 15, refer to Claim 4, it is unclear where the tail bits are located.

Claim 7, the recitation "wherein the number of ARQ blocks is response to the environment for producing a relatively high throughput" is merely functional in the apparatus claim. While functional language may not be indefinite, it is unclear what structure enables the action "producing a relatively high throughput" to be performed. Clearly, ARQ blocks lack any structure. Claim 6 depends on Claim 7.

Claim 10, refer to Claim 7, wherein "to balance requirement for data transmission and voice transmission" phrase is functional language. FEC blocks and ARQ blocks lack structure.

Claim 11, refer to Claim 7, wherein "to promote efficient operation depending on a wireless environment and mobile station complexity" phrase is functional language. FEC blocks and ARQ blocks lack structure. Furthermore, it is unclear what is meant by

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"mobile station complexity". Applicant is request to reference the specification so mete and bounds can be determined.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 7, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Jayapalan U.S. Patent Number 5,533,019.

Re Claim 7, the recitation "a node of a spread spectrum wireless network" will be deem intend of use and no patentable weight will be given because the phrase is not essential to understand limitation. Fig. 1 teaches a base station (an apparatus comprising a node) for transmitting wireless signals wherein the signal is according to fig. 4 wherein the frame structure 60 includes one or more FEC blocks 385 and within FEC includes one or more MDLP bits (ARQ blocks) (See col. 7, lines 1-10) wherein the MDLP blocks includes information data and plurality of continuity bits (overhead bits) (See col. 5, lines 45-56). ARQ is inherently response to the noisy environment to retransmit data and reproduce data for relatively high throughput.

Re Claim 8, refer to Claim 7, wherein the base station supports both voice and data hence, the ARQ is responsive to whether the information is voice or data.

Response to Arguments

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5. Applicant's arguments filed 12/14/04 have been fully considered but they are not persuasive.

Re Claims 4 and 15, Applicant is not entirely clear on the basis for the 112 rejections. Claim 4, lines 4-5 recites, "the frame structure comprising:" having 4 blocks of information, namely ARQ, FEC, a physical layer frame, and an interleaver block. Lines 12-13, recites, "wherein the physical layer frame includes...ARQ blocks". As recited, the physical layer frame includes ARQ block. Lines 14-15, recites, "wherein no ARQ blocks includes **any tail bits**, and the physical layer frame includes **multiple tail bits**". If "no ARQ block includes any tail bits", how can "physical layer frame includes multiple tail bits" when the "physical layer frame" includes the "the ARQ block".

Same reasoning for Claim 15, how can the "overhead bits...no tail bits" when "frame structure" includes the overhead bits with appended tail bits.

Applicant further argues that "Figure 2 of Applicant's specification" are consistent with claim 4. However, as examiner read claims in light of specification, examiner cannot read the specification into the claimed subject matter.

Re Claims 7, 10, and 11, Applicant argues that, "a node" is the structure. However, "a node" as claimed functions to transmits a wireless signal. Claims 7, 10, 11 lack its specific structure that performs the claimed function. "responsive to the environment for producing a relatively high throughput" as recited in Claim 7, "modifiable to balance requirements for data transmission and voice transmission" as recited Claim 10, "modifiable to promote efficient operation depending on the wireless environment..." as recited in claim 11, are mere functional limitations because it defines

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something by what it does rather than by what it is (e.g. by its specific structure) see MPEP 2173.05 (g). Had the “a node” is in fact the structure, it would have been a single means performing plural functions. Furthermore, functional language is acceptable so long as it set definite boundaries on the patent protection sought (In re Barr, 170 USPQ 33 (CCPA 1971). In this case, functional languages in claims 7, 10, 11 lack any boundaries “environment” is constantly changing.

Re Claim 7 and 16, Applicant argues that “a node of a spread spectrum wireless network” must be given patentable weight in light of U.S. Patent Number 5,533,019 anticipation. ‘019 patent discloses a node for transmitting a wireless signal. ‘019 patent does not teach whether the wireless system is spread spectrum. Examiner deemed this limitation as intended use because the body of the claim does not require any spreading codes for channelization. In order to limit a claim, the essential structure or steps or is “necessary to give life, meaning and vitality to a claim” (See Pitney Bowes, 51 USPQ2d at 1165-166). In this case, the spread spectrum does not “give life, and meaning and vitality to a claim” because spread spectrum is not required in the body of the claim. Hence, spread spectrum wireless system is an intended use. Further, Applicant has failed to provide evidence by spread spectrum is essential in limiting the claim as oppose of using another multiple access systems.

In particular to Claims 7 and 16, Applicant argues “the number of ARQ blocks” is varied. However, this limitation is not claimed. Furthermore, in consideration of functional limitations for purpose of applying art, while apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from

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the prior art in terms of structure rather than function alone (See *In re Swinehart*, 169 USPQ 226 (CCPA 1971). In this case, Claim 7 and 16 both recites single structure "a node". No other structure is recited in claims for differentiating over the prior art '019 patent except the function language, hence not persuasive.

Re Claims 8, 7 and 17, refer to above remarks for claim 7 and 16.

Allowable Subject Matter

6. Claims 9, 12, 14, 16-21 are allowed.

7. Claim 15 is would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Lee whose telephone number is 571-272-3130. The examiner can normally be reached on Monday to Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AI
5/26/05

ANDY LEE
PATENT EXAMINER

